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01112A

First M.B.B.S. (2019) Examination, Winter - 2022
PHYSIOLOGY - I

Total Duration : Section A + B = 3 Hours

Section B Marks : 80

SECTION - B

- Instructions :**
- 1) Use blue/black ball point pen only.
 - 2) Do not write anything on the blank portion of the question paper. Rough work should not be done on the Answer Sheets or anywhere on the Question Paper except the specific space provided for the rough work. If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) All questions are compulsory.
 - 4) The number to the right indicates full marks.
 - 5) Draw diagrams wherever necessary.
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) Use a common answerbook for section B.

2. Brief answer questions (any Ten out of Eleven) : [10 × 2 = 20]

- a) What are various layers of respiratory membrane. Enumerate the factors affecting the gas diffusion across the respiratory membrane.
- b) What is ejection fraction? What is its normal value?
- c) Define Autoimmunity. Name any 2 autoimmune disorders.
- d) What is Apoptosis? How it is initiated? Give its clinical significance.
- e) What is pacemaker potential? What is its Physiological significance?
- f) What is endogenous anticoagulant mechanism? Name any 2 anticoagulants.
- g) Define Hypoxia. Give its classification.

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- h) What is Dialysis? Give the physiological basis of Dialysis.
- i) Write in brief about Chloride shift mechanism.
- j) Write in brief about innervation of urinary bladder.
- k) Give the functional significance of Bacteria in the GIT.

3. Short answer questions (any Eight out of Nine):

[8 × 5 = 40]

- a) What are various phases of Action potential in nerve. Explain with the help of a diagram.
- b) Define Vital capacity. What are the factors affecting vital capacity. What is the Physiological significance of vital capacity?
- c) What is Oxygen deficit? Discuss in short the causes of Oxygen deficit.
- d) What are the peculiarities of coronary circulation? Add a note on Angina pectoris.
- e) Classify WBC. Give their normal counts. Explain in brief the process of Phagocytosis.
- f) What are types of communication methods? Give an account of its importance in Doctor patient relationship.
- g) Give an account of the Tubulo- glomerular feedback mechanism.
- h) A 42 year woman with month history of abdominal pain, diarrhea and rectal bleeding. She has progressive tiredness and appears pale. Her MCV, MCHC and MCH are low.
 - 1) What is morphological type of anemia in this patient?
 - 2) What is the treatment option for this patient?
 - 3) Classify the morphological types of anemia and give an example of each of this.